

DETAILED ACTION

1. This action is in response to applicant's amendment received on 08/06/10.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-4 and 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Garrett et al. (3,899,945) in view of Hirakawa et al. (5,297,461) and Scheffer et al. (4,962,683).

Garrett et al. discloses (Fig. 1-12) the invention including a machine 12, a machine entrance (see Fig. 3, the left side entrance), a machine exit (see Fig. 3, the right side exit), a processing zone (see Fig. 1, the center area), a sheet drive (58 and 60), a first tooling 16, a first rotary support shaft 125, a counter-tooling 18, a second rotary support shaft 101, an operating apparatus (56 and 126), the first tooling is rotating at a processing speed having a tangential component which is equal to the drive speed of the sheets (see col. 4, lines 5-8), a cylindrical surface 36 having resilient/flexible material (see col. 7, line 15) to allow the blade 34 of the first tooling to penetrate into (see col. 8, lines 15-17), a first motor 56 and a second motor 126. Garrett et al. doesn't show a plurality of working strips. However, Hirakawa et al. teaches the use of a plurality of working strips (3 and 15) for the purpose of obviating the shortcoming of breaking of the sheet at a change point. It would have been obvious to one having ordinary skill in the art at the time the invention was made to have modified the device of Garrett et al. by providing the a plurality of working strips as taught by Hirakawa et al. in order to obtain a device

Art Unit: 3724

that obviates the shortcoming of breaking of the sheet at a change point. Hirakawa et al. teaches working strips having a width in the circumferential direction greater than a width the first tooling (see Fig. 5A) and the working strip is mounted detachably by bolts 11 on the counter-tooling and made of elastic/flexible body (see Abstract). The working strips made of elastic body (elastic body is equal to flexible material) of Hirakawa et al. are capable of allowing the blades of the first tooling to penetrate into

The modified device of Garrett et al. discloses the invention substantially as claimed except for the first tooling including blades. However, Scheffer et al. teaches the use of blades 164 for the purpose of facilitating the cutout of the material. It would have been obvious to one having ordinary skill in the art at the time the invention was made to have modified the first tooling of Garrett et al. by providing the blades 164 as taught by Scheffer et al. in order to obtain a device that facilitates the cutout of the material. Also, Scheffer et al. teaches the at least one working strip 214 having a width in a circumferential direction greater than a width measured between the blades of the first tooling (see Fig. 9).

4. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Garrett et al. (3,899,945) in view of Hirakawa et al. (5,297,461) and Scheffer et al. (4,962,683) as applied to claim 1 above, and further in view of Kishine et al. (6,401,583 B1).

The modified device of Garrett et al. discloses the claimed invention except for the width of each working strip lies within the range of 1.05 to 1.8 times the width of the first tooling. It would have been obvious to one having ordinary skill in the art at the time the invention was made to have modified the device of Kishine et al. by providing the width of each working strip

Art Unit: 3724

lies within the range of 1.05 to 1.8 times the width of the first tooling, since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum value or workable ranges involves only routine skill in the art. *In re Aller*, 105USPQ 233.

5. Claims 9-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Garrett et al. (3,899,945) in view of Hirakawa et al. (5,297,461) and Scheffer et al. (4,962,683) as applied to claim 1 above, and further in view of Thiel et al. (6,220,134 B1).

The modified device of Garrett et al. discloses the invention substantially as claimed including first and second tools 34 (see col. 7, lines 11-13) and a control unit 127. Garrett et al. doesn't show a detector. However, Thiel et al. teaches the use of a detector 17 for the purpose of detecting the position of the web relative to the cutting device and adjusting the cutting device for cutting in the register mark. It would have been obvious to one having ordinary skill in the art at the time the invention was made to have modified the device of Garrett et al. by providing the (the missing limitation) as taught by Thiel et al. in order to obtain a device that detects the position of the web relative to the cutting device and adjusts the cutting device for cutting in the register mark.

Response to Arguments

6. Applicant's arguments have been fully considered but they are not persuasive. Applicant argues that prior arts taken along or in combination do not disclose a working strip 36 having a flexible material to allow the blades of the first tooling to penetrate into. However, the working strips made of elastic body (elastic body is equal to flexible material) of Hirakawa et al. are

Art Unit: 3724

capable of allowing the blades of the first tooling to penetrate into. Moreover, it is well known in the art, the use of a surface having resilient/flexible material to allow the blades to penetrate into the flexible material to obtain a complete cut of the corrugated material (see primary reference of Garrett col. 8, lines 15-17). Also, it is irrelevant if the specification of Hirakawa et al. doesn't disclose the term "penetration", because the primary reference of Garrett clearly teaches evidence that the flexible material 36 allows the blades to penetrate into (see Fig. 5 and 7), and Hirakawa et al. was not cited in relation for the flexible material or the blade penetrating the flexible material.

Conclusion

7. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Art Unit: 3724

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Omar Flores-Sánchez whose telephone number is 571-272-4507.

The examiner can normally be reached on 8:00-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Boyer Ashley can be reached on 571-272-4502. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/O. F./

Examiner, Art Unit 3724

11/5/2010

/Boyer D. Ashley/

Supervisory Patent Examiner, Art Unit 3724